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ABSTRACT

Two Basic Skill Centers were set up in 1969 to help inner city students improve their reading skills. The centers were supported mainly by the Minneapolis Public Schools although ESEA Title I funds provided teacher aides. This report covers the fifth year's operation of the project. Substantial changes made in the centers' operations are described. The goals of the program included remediation of subskill weaknesses, achievement of functional reading levels, and raising the rate of reading growth of children in Target Area schools who were one or more years below grade level in reading. Individualized instruction was provided for 604 students from grades 4-9 from 23 schools. A multimedia approach was used which included programs used in a variety of teaching machines as well as individual instruction in related classrooms. The students, who came from Title I Target Area schools, made grade equivalent gains well above what would have been expected for average children working at the reading levels of the Gates-MacGinitie and Stanford Primary Achievement tests which were the measuring instruments. About 70 percent of the students made grade equivalent gains on the Gates Comprehension test over those expected for the pre-posttest span of six months. Two thirds of the pupils made such gains on the Stanford Word Study skills tests. (Author/RC)

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Minneapolis Public Schools

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Basic Skill Centers of Minneapolis 1972-73

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Sara H. Clark, Title I Evaluator

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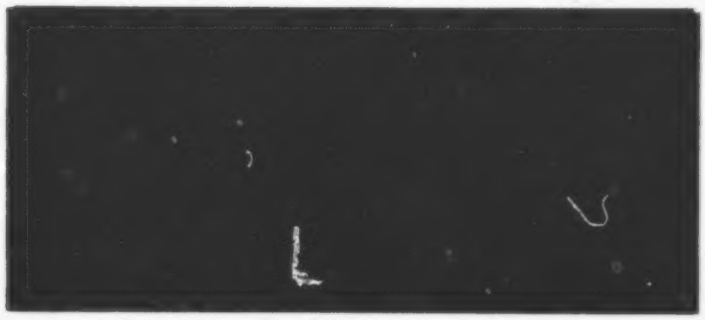

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Minneapolis Public Schools

Basic Skill Centers
1972-73

Summary

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Two Basic Skill Centers, one on the near North Side, the other on the South Side, were set up in 1969 to help inner city students improve their reading skills. The Centers were supported mainly by the Minneapolis Public Schools although ESEA Title I funds provided teacher aides. This report covers the fifth year's operation of the project. Substantial changes made in the Centers' operations are described.	6
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The City of Minneapolis

The program described in this report was conducted in the Minneapolis Public Schools. Minneapolis is a city of 434,400 people located on the Mississippi River in the southeastern part of Minnesota. With its somewhat smaller twin city, St. Paul, it is the center of a seven-county metropolitan area of over 1,874,000, the largest population center between Chicago and the Pacific Coast. As such it serves as the hub for the entire Upper Midwest region of the country.

The city, and its surrounding area, long has been noted for the high quality of its labor force. The unemployment rate in Minneapolis is lower than in other major cities, possibly due to the variety and density of industry in the city as well as to the high level capability of its work force. The Twin City metropolitan area unemployment rate in June of 1973 was 3.3%, compared with a 4.8% national rate for the same month. As the economic center of a prosperous region rich in such natural resources as forests, minerals, water power and productive agricultural land, Minneapolis attracts commerce and workers from throughout the Upper Midwest region. Many residents are drawn from the neighboring states of Iowa, Wisconsin, Nebraska and the Dakotas as well as from the farming areas and the Iron Range region of outstate Minnesota.

More Minneapolitans (32%) work in clerical and sales jobs than in any other occupation, reflecting the city's position as a major wholesale-retail center and a center for banking, finance and insurance. Almost as many (26%) are employed as craftsmen, foremen and operatives, and 23% of the work force are professionals, technicians, managers, and officials. One out of five workers is employed in laboring and service occupations.

Minneapolis city government is the council-dominated type. Its mayor, elected for a two year term, has limited powers. Its elected city council operates by committee and engages in administrative as well as legislative action.

Minneapolis is not a crowded city. While increasing industrial development has occupied more and more land, the city's population has declined steadily from a peak of 522,000 in 1950. The city limits have not been changed since 1927. Most homes are sturdy, single family dwellings built to withstand severe winters. Row homes are practically non-existant even in low income areas. In 1970, 48% of the housing units in Minneapolis were owner-occupied.

Most Minneapolitans are native born Americans, but about 35,000 (7%) are foreign born. Swedes, Norwegians, Germans, and Canadians comprise most of the foreign born population.

Relatively few non-white citizens live in Minneapolis although their numbers are increasing. In 1960 only three percent of the population was non-white. The 1970 census figures indicate that the non-white population had more than doubled (6.4%) in the intervening 10 years. About 70% of the non-whites are black. Most of the remaining non-white population is American Indian, mainly Chippewa and Sioux. Only a small number of residents from Spanish-surnamed or Oriental origins live in the city. In 1970 non-white residents made up 6.4% of the city's population but accounted for 15% of the children in the city's elementary schools.

Minneapolis has not reached the stage of many other large cities in terms of the level of social problems. It has been relatively untouched by racial disorders or by student unrest. Crime rates are below national averages.

One's first impression is that Minneapolis doesn't really have serious problems of blight and decay. But the signs of trouble are evident to one who looks beyond the parks and lakes and tree-lined streets. As with many other larger cities, the problems are focused in the core city and are related to increasing concentrations there of the poor, many of them non-whites, and of the elderly. For example, nine out of 10 black Americans in Minneapolis live in just one-tenth of the city's area. While Minneapolis contains 11% of the state's population, it supports 28% of the state's AFDC families.

There has been a steady migration to the city by American Indians from the reservations and by poor whites from the small towns and rural areas of Minnesota. They come to the "promised land" of Minneapolis looking for a job and a better way of life. Some make it; many do not. The American Indian population is generally confined to the same small geographic areas in which black Americans live. These same areas of the city have the lowest median incomes in the city and the highest concentrations of dilapidated housing, welfare cases, and juvenile delinquency.

The elderly also are concentrated in the central city. In 1970, 15% of the city's population was over age 65. The elderly, like the 18 to 24 year old young adults, live near the central city because of the availability of less expensive housing in multiple-unit dwellings. Younger families have continued to migrate toward the outer edges of the city and to the surrounding suburban areas.

The Minneapolis Schools

About 69,477 children go to school in Minneapolis. Most of them, about 61,052, attend one of the city's 98 public schools; 8,425 attend parochial or private schools.

The Minneapolis Public Schools, headed by Dr. John B. Davis, Jr., who became superintendent in 1967, consists of 67 elementary schools (kindergarten-6th grade), 15 junior high schools (grades 7-9), nine high schools (grades 10-12), two junior-senior high schools, and five special schools. Nearly 3,500 certificated personnel are employed.

Control of the public school system ultimately rests with a seven-member board which levies its own taxes and sells its own bonds. These non-salaried officials are elected by popular votes for staggered six-year terms. The superintendent is selected by the board and serves as its executive officer and professional adviser.

Almost 40 cents of each local property tax dollar goes to support a school system whose annual operating general fund budget in 1973-74 is $81,038,330 up from $78,992,236 in 1972-73. Minneapolis received federal funds totaling 11.8 million dollars in 1972-73 from many different federal aid programs. The Elementary and Secondary Education Act provided about 6.5 million dollars, of which 3.4 million dollars were from Title I funds. The adjusted maintenance cost per pupil unit in the system was $981 in 1971-72 while the range of per pupil unit costs in the state for districts maintaining elementary and secondary schools was from $563 to $1,324.

One of the superintendent's goals has been to achieve greater communication among the system's schools through decentralization. Initially, two "pyramids" or groups of geographically related schools were formed. First to be formed, in 1967, was the North Pyramid, consisting of North High School and the elementary and junior high schools which feed into it. In 1969 the South-Central Pyramid was formed around South and Central High Schools. Each pyramid had an area assistant superintendent as well as advisory groups of principals, teachers, and parents. The goals of the pyramid structure were to effect greater communication among schools and between schools and the community, to develop collaborative and cooperative programs, and to share particular facilities and competencies of teachers.

In the summer of 1973 decentralization was carried one step further when the entire school district, with the exception of five schools involved in an experimental program called Southeast Alternatives, was divided into three areas.

Each of these areas -- East, West and North -- is headed by a superintendent who has autonomous decision-making power within the guidelines of school district policies and philosophies.

Based on sight counts on October 17, 1972 the percentage of black American pupils for the school district was 10.6%. Eight years before, the proportion was 5.4%. American Indian children currently comprise 3.8% of the school population, more than double the proportion of eight years ago. The proportion of minority children in the various elementary schools generally reflects the prevailing housing pattern found in each school area. Although some non-white pupils are enrolled in every elementary school, non-white pupils are concentrated in two relatively small areas of the city. Of the 67 elementary schools, 11 have more than 30% non-white enrollment and four of these have over 50%. There are no all-black nor all-white schools. Twenty-three elementary schools have non-white enrollments of less than 5%.

The Minneapolis School Board has approved a desegregation plan involving busing which has operated smoothly since taking effect in September 1973.

The proportion of school age children in AFDC homes has more than doubled from approximately 12% in 1962 to 28% in 1972.

While the median pupil turnover rate for all the city schools in 1971-72 was about 24.5%, this figure varied widely according to location (turnover rate is the percentage of students that comes new to the school or leaves the school at some time during the school year, using the September enrollment as a base figure). Target Area schools generally experience a much higher turnover rate; in fact only four of the Target Area schools had turnover rates less than the city median. Compared with the city, the median for the Target Area schools was 36.1%.

The Target Area

The Target Area is a portion of the core city of Minneapolis where the schools are eligible to receive benefits from programs funded under Title I of the Elementary and Secondary Education Act (ESEA). A school is eligible to receive Title I aid if the percentage of families residing in that school's district which receives AFDC payments (in excess of $2,000 a year) -- or has an annual income under $2,000 -- exceeds the citywide percentage for families in those categories.

In 1972-73, nearly 26,871 children attended the 25 elementary schools, five junior highs, three senior highs and seven parochial schools that were eligible to receive this aid. One-third of these students were from minority groups and one-third were defined by the State Department of Education as

educationally disadvantaged, i.e. one or more grade levels behind in basic skills such as reading and arithmetic. Federal programs are concentrated on the educationally disadvantaged group.

According to 1970 census data, over 170,000 persons resided in the Target Area. Of that group, 11 percent were black and 3½ percent were Indian, more than double the citywide percentage of minority group members. Over half of the Target Area residents over 25 years old had not completed high school, compared to the 35 percent of the non-Target Area residents who did not have high school diplomas. One out of five Target Area residents over the age of 25 had gone to college, and nine percent had completed four or more years. One out of four of the non-Target Area residents had gone to college, and 15 percent had completed four or more years.

The income for an average Target Area family was $9,113 in 1970, about $2,000 less than the citywide average. The homes they lived in had an average value of $10,385, over 40 percent less than the average value of a single family residence in Minneapolis. One out of five Target Area children between the ages of 6 and 17 was a member of a family that was below the poverty level, while only 6 percent of the non-Target Area children had such a family status.

Historical Background

The Minneapolis Public Schools' Basic Skill Centers (BSC) have been operating since the summer of 1968. The BSC program was developed to help inner city students improve their reading skills. It provides for those Target Area students whose reading is most retarded.

There are two Basic Skill Centers; one on the near North Side, the other on the South Side. The Centers have been supported mostly with local funds although most of the teaching aides have been paid with ESEA Title I funds. Each year about 700 students, the majority in grades four through six, have participated in the BSC program.

One major aspect of the original BSC operation was the extensive use of Talking Typewriters. From 1968 to 1970 each student spent 20 minutes a day using these computerized teaching machines and 20 minutes in an adjacent classroom where he received additional instruction from teachers and aides.

In 1970-71 the Centers' program -- hardware, software and students served -- was changed substantially. A multimedia room was developed in which students worked with tabletop Talking Pages, listening tables, overhead projectors and, in some cases, with Dorsett teaching machines. Students spent equal amounts of time in the multimedia room, on the Talking Typewriters and in the related classrooms, using two of these three facilities each day. New software for the Talking Typewriters and other teaching machines, and new support materials for the Centers' classrooms were developed by personnel from the Minneapolis Public Schools. Related materials for the home school classrooms, to be used on a volunteer basis, also were prepared. From 1970 on, only the children who were most severely retarded in reading as determined by their teachers and by tests, participated in the program. Previously, intact classrooms from Target Area schools had attended the Centers.

A brief overview of past findings is included here. A more detailed history of the project and evaluations of previous years are available.[1]

[1] Clark, S. P. Basic Skill Centers Evaluation, September 1969- June 1971. Minneapolis: Minneapolis Public Schools, 1971.

Clark, S. H. Basic Skill Centers of Minneapolis, 1971-72. Minneapolis: Minneapolis Public Schools, December 1972.

In 1968-69 and 1969-70 Stanford Primary Achievement Tests were used to measure the growth in reading of the students who attended the Centers and of comparison students from some of the same Target Area schools. The gains were not high for either group. The results on the vocabulary subtest were significantly (statistically) higher for the comparison students than for the Center students.

In 1970-71 many changes in the program were made. New student selection procedures were initiated, changes in the instructional program were begun, and the Gates-MacGinitie tests were used. Pre-post test results were obtained from 460 of the 701 students who received services from the Centers. Substantial gains were made on both reading comprehension and vocabulary tests. About seven out of ten children with complete test data made gains of one year or more in the six month pre-post test span.

In 1971-72 services were provided for 675 students. Two-thirds of the 501 students with complete test data made gains equal to or greater than expected for average children in the grade levels at which they were working. According to questionnaire responses, the Centers were viewed very favorably by parents, home school teachers, and the participating students.

Objectives

The general goals of this program include teaching a structured system of word attack to pupils, remediation of sub-skill weaknesses, achievement of functional reading levels for pupils, and raising the rate of reading growth of children in Target Area schools who were one or more years below grade level in reading in September 1972.

These general goals imply the following specific goals:

1. Knowledge of phoneme-grapheme relationships for:
    a. Single letters having hard consonant or short vowel values.
    b. Recurrent visual patterns (largest usable elements recurring frequently in words) which contain one or more of the following:
        (1) consonant digraphs or blends
        (2) phonetically regular phonograms
        (3) phonograms having modified, long or schwa values for vowels
        (4) phonetically irregular patterns

2. Knowledge of structural patterns in words:

   a. Inflected endings and accent
   b. Prefixes and suffixes
   c. Changes in root words
   d. Compound words
   e. Contractions

3. Ability to recognize a succession of visual patterns in longer words.

4. Development of basic comprehension skills:

   a. Development of both listening and sight vocabularies
   b. Ability to phrase in thought units
   c. Word, sentence and paragraph comprehension
   d. Comprehension of longer units such as stories and factual articles

A measurable objective was to raise the reading achievement of the children as measured by standardized tests. A gain of one month or more in grade equivalents for each month of attendance at the Centers by at least 50% of the students would be considered as attainment of that objective.

Project Operations

The North and South Basic Skill Centers continued to serve the most disabled readers from Title I schools, grades four to nine, during the school year 1972-73. General organization of the Centers remained substantially the same as before during the first half of the school year.

Further development of the new Basic Skill Centers Reading Program, however, caused increasing curricular change during the year. As new instructional materials were developed and produced, changes were made in the program. The goal for materials production was a change from the Sullivan (Behavioral Research Laboratory) program to one structured around visual patterns in words. Frequency counts related to approaches used in the home schools were studied. Those of Barnes, Dolch-Fulmer-Kolson, Fry, Harris, Kucera-Francis, and Ogden, as well as vocabulary lists of the American Book Company's basal series, Behavioral Research Laboratories Programmed Texts and McGraw-Hill Programmed Reading Books all were utilized in selection of a vocabulary to fit the visual-pattern sequences of the Basic Skill Centers Reading Program for Older Pupils.

During the preceding year some changes had been made on the Talking Typewriters, in tachistoscopic lessons, in paper mini-booklets, on Language Master cards and in instructional games and worksheets. Encoded cassette-filmstrip lessons to teach the new Basic Skill Centers Reading Program for Older Pupils were put into use as soon as they were developed. These lessons were adapted for use on three-button pupil-response teaching machines, already in the Centers, which had formerly used commercial software inappropriate for the new instructional approach.

Three classroom teachers, with special qualifications either in teaching reading or in special learning disabilities, had assisted the administrator with materials development on a part-time hourly basis since the spring of 1972. During the summer of 1972, the four Center teachers joined the materials production team with one teacher recording the cassette components of the lessons. It had been anticipated that more than sixty encoded cassette-filmstrip lessons would be available for experimental use in the Centers before the opening of the 1972-73 school year.

Diverse and unpredictable mechanical difficulties had made this goal impossible. By late September 1972, only fourteen lessons were available; by the end of November just twenty-eight had been provided for use in the Centers.

Because of economic factors, eleven of the Talking Typewriters were returned to the manufacturer during the December-January break, leaving five at each Center. Since forty-eight encoded cassette-filmstrip lessons were to be ready when the children returned in January, an additional number of the less expensive three-button pupil-response teaching machines were purchased as replacements for the typewriters. These changes in teaching machines made curricular adjustments mandatory.

Teachers at the North Basic Skill Center decided to present an encoded cassette-filmstrip lesson to each pupil every day, beginning in January, even though that would mean repetition of programs since the number available was inadequate. Teachers at the South Center decided to provide the new lessons for pupils every other day to avoid repetition. By posttest time in May, sixty-nine lessons were in use in the Centers. These were not all

in sequence because of continuing mechanical difficulties in production. In fact, three of the introductory, or letter-introduction level, lessons were not available until after the school year had ended. Single prototypes of eight additional lessons had been tried out with one or two individual children, to check for errors, but these, for various reasons, had not been duplicated for regular use in instruction during the period covered by this report. Many mechanical difficulties with teaching machines, adapters and cassettes caused interruptions during use of the encoded cassette-filmstrip lessons with pupils. Despite this fact, children expressed approval of the new lessons.

Each Center had a classroom, a multi-media center, and a laboratory which housed the Typewriters and later the new machines. Thirty students per period at each Center were scheduled so that during any given week their time was divided equally among those three stations. Over a month's time the students averaged 13 minutes a day in each of the rooms though on any given day they spent 20 minutes at each of two stations. There were nine periods each school day except Tuesday when afternoon classes were not held. Each student received individual assistance every day from a teacher, or teacher aide, who discussed his progress with him.

Personnel

The staff, both professional and paraprofessional, at the Centers were well qualified to carry out their respective duties.

The four teachers were remedial reading specialists. Two of the teachers had worked in the project since its inception. All the teachers had special training in the use of the programs and the related materials.

Thirty-one teacher aides, 29 of whom were full-time, worked with the students under supervision of the teachers in the classrooms, multimedia rooms and in the Talking Typewriter labs. One additional aide worked full time as a technician in the production of cassettes and related film-strips for programs which had been developed by the professional staff. Many of the aides had been with the program since it began. They had all received special training in their work and had attended inservice sessions whenever new materials or methods were introduced.

A clerk at each of the Centers fulfilled the usual clerical requirements and assisted in the production of materials.

The daily administrative and mechanical problems of the project were handled by a teacher on special assignment who also demonstrated the use of newly developed BSC supplementary materials to teachers in the students' home schools. He had experience as both a teacher and an administrator in the project.

He reported to the assistant director of Planning, Development and Federal Programs who was the administrator of the project, responsible for all aspects of its operations. She also was a reading specialist and a former supervisor-instructor of the elementary reading clinic at the University of Minnesota. The administrator inaugurated the development of some stages of a new Basic Skill Centers' Reading Program in November 1970, and initiated the development of the entire new structure, complete with programmed encoded filmstrip-cassette lessons, in January 1972. At that time, three part-time teachers on leave joined the staff as writers for the new sequences. One three-quarter time artist was also added to the staff to work on the programmed encoded cassette-filmstrip system which was being developed for a three-button-response type of machine.

No supplemental services were received from persons other than the staff listed above during the period covered by this report.

Planning and Training

The professional staff at the Basic Skill Centers has continuously planned changes to improve the program. Weekly meetings were held with the administrator on Tuesday released time, a time scheduled in all Minneapolis schools for faculty training. Additional staff members were added, as noted in the section on personnel, to assist with development of new materials.

A full day inservice session was conducted for the aides, before school began in the fall, to acquaint them with new methods.

Classroom teachers and aides from the home schools participated in one after-school session at which follow-up materials for the BSC reading program were presented, explained and demonstrated.

The Project Schools

Twenty elementary and three junior high public schools participated in the program. One parochial school sent ten students. Except for one of the junior high schools which sent only three students, all schools were located in the inner-city Target Area. Of the 22 Target Area public schools, all but six had higher mobility rates than the average for the city. According to 1970 census data the areas in which 19 of the 22 schools were located had fewer children living with both parents than the 79% city average. All of the elementary schools involved had higher percentages of students from AFDC families than the 28% city average. The two junior high schools were also well above the city's average in the percentage of students who came from AFDC families. The census data showed that the areas in which 17 of the 22 schools were located had larger percentages of families below the poverty level than did the average school enrollment area in Minneapolis. Fewer adults had completed high school than the city average in the areas in which 18 of the 22 schools were located. Half of the schools had large minority enrollments (from 25% to 73%) though seven of them had 10% or fewer minority students.

The distribution of students by schools in which they were enrolled is shown in Table 1. The 384 students in the evaluation group were those for whom both pre- and posttest scores on the Gates-MacGinitie test were available. Stanford scores were available for 305 students in this group. The 220 students in the group with incomplete data were lacking either pre- or posttest Gates scores or both. About 40% of these students were enrolled in the program for less than the six weeks which had been set as the minimum length of time between pre- and posttesting. Another 30% of them moved or transferred without giving notice to the Center.

Student Participants

The majority of the 604 students who were enrolled, even briefly, at the Basic Skill Centers during the 1972-73 school year were in grades 4 through 6. Most of the junior high students were seventh graders.

Table 1

Numbers of Students from Participating Schools
1972-73

School	Students in Evaluation Group	Students with Incomplete Data	Total Number
Bancroft	26	9	35
Bremer	23	5	28
Calhoun	18	1	19
Clinton	23	9	32
Corcoran	29	12	41
Douglas	13	12	25
Hall	13	6	19
Harrison	24	7	31
Hawthorne	23	9	32
Holland	8	7	15
Irving	19	7	26
Lowell	21	9	30
Lyndale	14	33	47
Madison	9	7	16
Prescott	13	3	16
Putnam	18	1	19
Seward	24	10	34
Webster	3	4	7
Whittier	6	9	15
Willard	14	18	32
Franklin	14	14	28
Olson	1	2	3
Phillips	28	16	44
Ascension	0	10	10
Totals	384	220	604

Table 2 gives distributions by grade and Center for the 384 pupils for whom both pre- and posttests were available. They were the group on which the evaluation was based. The grade levels of those with incomplete test results are also given.

Table 2

Distribution by Grade Level
of BSC Participants
1972-73

	Students in Evaluation Group		Students with Incomplete Data		Total
Grade	North Center N	South Center N	North Center N	South Center N	N
4	79	70	31	45	225
5	51	71	24	32	178
6	31	34	23	31	119
7	16	24	14	11	65
8	0	2	0	5	7
9	0	1	1	0	2
Unknown	0	5	2	1	8
Totals	177	207	95	125	604

Overall, the boys outnumbered the girls by two to one. One third of the fourth and fifth grade students had attended the Centers before their enrollment this year whereas nearly half of the older students had previous BSC experience. Those who had not finished the course the previous year had been encouraged to return to complete the program.

The students were selected for the program by a dual screening. First, each participating school was asked to identify 40 of its lowest readers as candidates for assistance. The BSC teachers then gave each child an individual oral placement examination. Using the results of this test the 30 children most in need of the training provided at the Centers were selected. This examination was also used to place children at the appropriate levels in the program.

The attendance rate, determined by dividing the average number of days present by the average number of days on roll, ranged from 81% to 85% for the different evaluation groups. The attendance rate for those with incomplete data ranged from 69% to 74%. These figures may be compared with the Minneapolis attendance rate of 94% for elementary schools in the same year. Table 3, which gives the reasons why students left the Centers, shows that nearly a third of those with incomplete data left the program because they moved or transferred to non-participating schools. If a student transferred from one participating school to another, he generally continued in the program. Few students completed the course in less than the whole school year.

Parent-Community Involvement

Each of the Centers held an open house in the fall to which all of the parents and many community leaders were invited. The turn-out for these events was good in terms of the usual parent involvement in the PTA's of the participating schools.

Dissemination and Communication

There was less publicity than in previous years in the general news media in this fifth year of the project's operation. However, the new program was reported in a full page article in the School Bulletin on December 8, 1972. The School Bulletin, on February 2, 1973 printed a picture of the project's director showing some new equipment to the Title I Parent Advisory Team. The Twin Cities Courier, a weekly newspaper, described the Basic Skill Center program in an article on Title I benefits which Minneapolis children were to receive in 1972-73.

Table 3

Reasons for Leaving the Centers
1972-73

Reason	Evaluation Group						Students with Incomplete Data					
	North		South		Total		North		South		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
End of School Year	154	87.0	179	86.5	333	86.7	46	48.4	25	20.0	71	32.3
Parent, Teacher or School Request	5	2.8	20	9.6	25	6.5	9	9.5	38	30.4	47	21.4
Pretested Too High	11	6.2			11	2.9	7	7.4			7	3.2
Finished Course Before End of Session	1	.6	2	1.0	3	.8	1	1.0			1	.4
Moved or Transferred	1	.6	1	.5	2	.5	23	24.2	42	33.6	65	29.5
Assigned to Special Class		0	1	.5	1	.3	7	7.4	5	4.0	12	5.5
Poor Attendance									11	8.8	11	5.0
Discipline on Bus									2	1.6	2	.9
Not Available	5	2.8	4	1.9	9	2.3	2	2.1	2	1.6	4	1.8
Total	177	100.0%	207	100.0%	384	100.0%	95	100.0%	125	100.0%	220	100.0%

Communication between the Centers and the schools continued to receive emphasis. At the beginning of the school year, charts showing the entry level of each of their students were sent to all participating home school teachers and principals. These charts were up-dated every two weeks to provide information on the progress of the individual students.

In addition, arrangements were made so that the home school classroom teachers who sent pupils to BSC could accompany their students to observe not only the program but also their students' performance and reactions. Each teacher made one visit.

A large variety of followup materials developed at the Centers was distributed to the home schools to be used for individual reinforcement at the different levels at which the children were working at the BSC. Instruction in the use of these materials was given to classroom teachers and aides at a two-hour, after school, inservice session. As new supplements were developed and delivered to the schools the project administrator explained their use.

Student Measures

The comprehension section of the Gates-MacGinitie Reading Test was used for both pre- and posttesting. Primary B (designed for second grade), Form 1, was used for grades 3-5 and Primary C (designed for third grade), Form 1, was used for grades 6 and above. These were not the tests designated for the grade levels in which the children were enrolled at their home schools but they more nearly matched the actual reading levels of the students who were one or more years below grade level according to city-wide testing.

According to the publisher,

> The Comprehension test measures the child's ability to read and understand whole sentences and paragraphs. This ability includes many skills not involved in the mere ability to recognize words. The child must grasp the total thought if he is to answer correctly.

Although children entered and left the program at various times during the year, every effort was made to ensure that they received both pre- and

posttests. The minimum time span between testing was 6 weeks though the mean span was from 5 to 7 months for the different evaluation groups.

The word study skills section of the Stanford Achievement Reading Test was again used in an effort to measure gains in skills that were being taught in the new programs which were being developed. According to the publisher, the Primary I level tests "auditory perception of beginning and ending sounds, phonics, and phonograms." The Primary II level tests "auditory perception of beginning and ending sounds and visual phonics." The Primary I test was given to those who took the Gates-MacGinitie, Level B, and the Primary II test was used for those who took the Gates, Level C.

Although the new program was not fully implemented before the end of the 1972-73 school year, pre- and posttest scores were obtained.

Budget

Title I funds of $129,987 were allocated to the Basic Skill Centers for 1972-73. This amounted to a cost of $215.21 cents per pupil. This money was used for teacher aides and the encoder for the new BSC program. Local funds were provided for the rest of the program.

Results

Gain scores on the comprehension section of the Gates-MacGinitie tests were obtained for 384 of the 604 students who attended the Centers. Distribution of these scores (Tables 4 and 5) showed that the BSC program more than met its stated objective of raising the reading achievement, as measured by standardized tests, of the children enrolled in the project.

Grade equivalent (G.E.) gains in comprehension of a month or more for each month that had been in the BSC program were made by 70% of the students on the Gates-MacGinitie comprehension test (Table 4). The median G.E. gain was +1.0 in an average of six months of instruction. Because the grade equivalents for the standardized tests were given in tenths of a school year it was necessary to divide the days present into tenths of a school year in order to relate the gains to the expectations for amount of instruction. Since the program was individualized so that students could enter or leave the BSC program at any time during the school year the days present seemed an appropriate measure of length of exposure to instruction. Although most of the testing was done in October and May, pick-up testing was done on an individual basis when needed. A study done in February 1971 had shown that the results of using the Gates test this way did not differ significantly from when it was given as a group test (see footnote I).

The results of the Stanford Achievement test also showed attainment of the objective that at least 50% of the students make a G.E. gain of one month or more for each month of attendance at the Centers. About two-thirds of the students showed gains over what might have been expected for the average of six months of instruction. The median G.E. gain was eight months in that time span (Table 5).

In January, 1973, changes were made in the instructional materials at both Centers. The North Center started using the BSC programs every day, repeating programs as necessary. The staff at the South Center decided to use the new programs on alternate days. As a result of these decisions, the South Center

Table 4

Grade Equivalent Gains Distributions
Gates-MacGinitie Reading Test, by Level
Comprehension
1972-73

Grade Equivalent Gains	Level B N	%	Cum. %	Level C N	%	Cum. %
+3.0 or more	2	.7	1	4	3.7	4
+2.5 to +2.9	26	9.4	10	3	2.8	6
+2.0 to +2.4	33	12.0	22	10	9.3	16
+1.5 to +1.9	25	9.1	31	18	16.6	32
+1.0 to +1.4	55	19.9	51	23	21.3	54
+.9	23	8.3	59	6	5.5	59
+.8	12	4.4	64	7	6.5	66
+.7	10	3.6	67	1	1.0	67
+.6	8	2.9	70	3	2.8	70
+.5	13	4.7	75	4	3.7	73
+.4	11	4.0	79	5	4.6	78
+.3	8	2.9	82	6	5.5	83
+.2	7	2.5	84	7	6.5	90
+.1	8	2.9	87	3	2.8	93
0	15	5.4	93	2	1.8	94
-.1 to -.5	16	5.8	98	5	4.6	99
-.6 or less	4	1.5	100	1	1.0	100
Total N	276	100.0%		108	100.0%	

Median G.E. gain: +1.0

Mean attendance: 116 days or .64 school year

70% of the students gained 6 or more months in the average of 6 months of instruction

Median G.E. gain: +1.0

Mean attendance: 103 days or .57 school year

70% of the students gained 6 or more months in the average of 6 months on instruction.

Table 5

Grade Equivalent Gains Distributions
Stanford Achievement Test, by Level
Word Study Skills
1972-73

Grade Equivalent Gains	Primary I N	%	Cum. %	Primary II N	%	Cum. %
+3.0 or more	7	3.0	3	2	2.9	3
+2.5 to +2.9	15	6.4	9	2	2.9	6
+2.0 to +2.4	21	8.9	18	4	5.8	12
+1.5 to +1.9	18	7.6	26	6	8.7	20
+1.0 to +1.4	38	16.1	42	12	17.4	38
+.9	11	4.7	47	6	8.7	46
+.8	16	6.8	54	4	5.8	52
+.7	22	9.3	63	5	7.3	59
+.6	14	5.9	69	3	4.3	64
+.5	12	5.1	74	4	5.8	70
+.4	9	3.8	78	2	2.9	72
+.3	9	3.8	81	1	1.5	74
+.2	11	4.7	86	3	4.3	78
+.1	9	3.8	90	2	2.9	81
0	8	3.4	93	3	4.3	86
-.1 to -.5	14	5.9	99	7	10.1	96
-.6 or less	2	.8	100	3	4.3	100
Total N	236	100.0%		69	99.9%	

Median G.E. gain: +.80

Mean attendance: 116 days or .64 school year

69% of the students gained 6 or more months in the average of 6 months of instruction.

Median G.E. gain: +.79

Mean attendance: 103 days or .57 school year

64% of the students gained 6 or more months in the average of 6 months of instruction.

students used the Sullivan (BRL) programs much more frequently than did those at the North Center. Although these changes were not made until the middle of the year, the results of the achievement testing were analyzed separately for the two Centers. Tables 6 and 7 show that more students at the North Center made gains above expectations for the length of instruction than at the South Center. The median G.E. gain at the North Center was +1.3, at the South Center it was +.8. Further data from the Gates Mac-Ginitie testing are given in Table 8. There were no significant differences between the Centers at either level of testing in the pretests. However, the mean scores on the posttests were significantly higher at the North Center. This could not be explained by length of attendance since there were no significant differences between the two Centers in the number of days present.

The results of the Stanford Achievement test (Primary I) showed the same percentages (65%) of the students making above average gain in both Centers. At the Primary II level, sixty-four percent of the North Students gained one month or more for each month of instruction while 73% of the South students made such gains (Table 10).

Discussion

The program at the Basic Skill Centers continued to be effective in achieving its goals in 1972-73. Over the five years of its operation the trend has been one of steady gain in the percentages of students who have made improvement in their reading achievement as measured by the standardized tests which have been used.

Since the new BSC programs were used more frequently at the North Center than at the South Center, the results of the Gates testing as given by Center in Tables 6 and 7 merit special attention. Due to the rounding of the tenths of a school year the average length of instruction varied from five to seven months for the different test levels and Centers. Even if the figures were rounded to the over all average of six months of instruction, the percentages of students gaining above expectation is markedly

Table 6

Grade Equivalent Gains Distributions
Gates-MacGinitie Reading Test, Level B,
Comprehension, by Centers
1972-73

Grade Equivalent Gains	North Center N	North Center %	North Center Cum. %	South Center N	South Center %	South Center Cum. %
+3.0 or more	1	.8	1	1	.7	1
+2.5 to +2.9	19	14.6	15	7	4.8	6
+2.0 to +2.4	24	18.5	34	9	6.2	12
+1.5 to +1.9	13	10.0	44	12	8.2	20
+1.0 to +1.4	25	19.2	63	30	20.6	40
+.9	9	6.9	70	14	9.6	50
+.8	9	6.9	77	3	2.1	52
+.7	6	4.6	82	4	2.7	55
+.6	2	1.5	83	6	4.1	59
+.5	7	5.4	88	6	4.1	63
+.4	1	.8	89	10	6.8	70
+.3	1	.8	90	7	4.8	75
+.2	5	3.9	94	2	1.4	76
+.1	2	1.5	95	6	4.1	80
0	4	3.1	98	11	7.5	88
-.1 to -.5	2	1.5	100	14	9.6	97
-.6 or less				4	2.7	100
Total N	130	100.0%		146	100.0%	

Median G.E. gain: +1.29

Mean attendance: 118 days or .65 school year

82% of the students gained 7 or more months in the average of 7 months of instruction.

Median G.E. gain: +.85

Mean attendance: 114 days or .64 school year

59% of the students gained 6 or more months in the average of 6 months of instruction.

N.B. Error caused by rounding the mean attendance tends to yield a conservative picture of the difference between the two Centers.

Table 7

Grade Equivalent Gains Distributions
Gates-MacGinitie Reading Test, Level C,
Comprehension, by Centers
1972-73

Grade Equivalent Gains	North Center N	%	Cum. %	South Center N	%	Cum. %
+3.0 or more	1	2.1	2	3	4.9	5
+2.5 to +2.9	2	4.3	6	1	1.6	7
+2.0 to +2.4	6	12.7	19	4	6.6	13
+1.5 to +1.9	11	23.4	43	7	11.5	25
+1.0 to +1.4	12	25.5	68	11	18.0	43
+.9	3	6.4	74	3	4.9	48
+.8	2	4.3	79	5	8.2	56
+.7	0	0.0	79	1	1.6	57
+.6	1	2.1	81	2	3.3	61
+.5	3	6.4	87	1	1.6	62
+.4	2	4.3	92	3	4.9	67
+.3	1	2.1	94	5	8.2	75
+.2	3	6.4	100	4	6.6	82
+.1				3	4.9	87
0				2	3.3	90
-.1 to -.5				5	8.2	98
-.6 or less				1	1.6	100
Total N	47	100.0%		61	99.9%	
	Median G.E. Gain: +1.30			Median G.E. Gain: +.82		
	Mean attendance: 98 days or .54 school year			Mean attendance: 107 days or .59 school year		
	87% of the students gained 5 or more months in the average of 5 months of instruction.			61% of the students gained 6 or more months in the average of 6 months of instruction.		

Table 8

Raw Score Means, Standard Deviations, and t-tests for
Gates-MacGinitie Tests and Attendance
North and South Centers
1972-73

Level B Students	North N=130 Mean	North N=130 S.D.	South N=146 Mean	South N=146 S.D.	t
Pretest	14.62	6.03	15.16	8.68	-.61
Posttest	24.51	6.76	21.92	7.78	+2.96**
Days Present	117.74	25.93	114.34	36.10	+.91

Level C Students	North N=47 Mean	North N=47 S.D.	South N=61 Mean	South N=61 S.D.	t
Pretest	19.38	7.64	19.39	8.60	-.01
Posttest	30.17	7.91	26.46	10.89	+2.05*
Days Present	97.57	40.32	106.98	33.20	-1.30

*.05 level

**.01 level

Table 9

Grade Equivalent Gains Distributions
Stanford Achievement Test, Primary I,
Word Study Skills, by Center
1972-73

Grade Equivalent Gains	North Center N	%	Cum. %	South Center N	%	Cum. %
+3.0 or more	4	3.5	4	3	2.5	2
+2.5 to +2.9	7	6.1	10	8	6.6	9
+2.0 to +2.4	10	8.8	18	11	9.0	18
+1.5 to +1.9	4	3.5	22	14	11.5	30
+1.0 to +1.4	18	15.8	38	20	16.4	46
+.9	4	3.5	41	7	5.7	52
+.8	12	10.5	52	4	3.3	55
+.7	15	13.2	65	7	5.7	61
+.6	9	7.9	73	5	4.1	65
+.5	5	4.4	77	7	5.7	70
+.4	2	1.8	79	7	5.7	76
+.3	5	4.4	83	4	3.3	80
+.2	7	6.1	90	4	3.3	83
+.1	3	2.6	92	6	4.9	88
0	2	1.8	94	6	4.9	93
-.1 to -.5	7	6.1	100	7	5.7	98
-.6 or less				2	1.6	100
Total N	114	100.0%		122	99.9%	

Median G.E. gain: +.77

Mean attendance: 118 days or .65 school year

65% of the students gained 7 or more months in the average of 7 months of instruction.

Median G.E. gain: +.88

Mean attendance: 114 days or .64 school year

65% of the students gained 6 or more months in the average of 6 months of instruction.

Table 10

Grade Equivalent Gains Distributions
Stanford Achievement Test, Primary II,
Word Study Skills, by Center
1972-73

Grade Equivalent Gains	North Center N	%	Cum. %	South Center N	%	Cum. %
+3.0 or more	2	7.1	7			
+2.5 to +2.9	1	3.6	11	1	2.4	2
+2.0 to +2.4	0	0.0	11	4	9.8	12
+1.5 to +1.9	1	3.6	14	5	12.2	24
+1.0 to +1.4	4	14.3	29	8	19.5	44
+.9	2	7.1	36	4	9.8	54
+.8	2	7.1	43	2	4.9	59
+.7	2	7.1	50	3	7.3	66
+.6	0	0.0	50	3	7.3	73
+.5	4	14.3	64	0	0.0	73
+.4	1	3.6	68	1	2.4	76
+.3	1	3.6	71	0	0.0	76
+.2	0	0.0	71	3	7.3	83
+.1	0	0.0	71	2	4.9	88
0	2	7.1	79	1	2.4	90
-.1 to -.5	3	10.7	89	4	9.8	100
-.6 or less	3	10.7	100			
Total N	28	99.9%		41	100.0%	

Median G.E. gain: +.60

Mean attendance: 98 days or .54 school year

64% of the students gained 5 or more months in the average of 5 months of instruction.

Median G.E. gain: +.89

Mean attendance: 107 days or .59 school year

73% of the students gained 6 or more months in the average of 6 months of instruction.

higher at the North Center. These figures suggest that the greater use of the new BSC materials at the North Center considerably improved the program. However, a more closely controlled study would be needed to pinpoint the differences between the two Centers.

There are many weaknesses in measuring achievement in an individualized program, such as this, with standardized tests in terms of grade equivalent gains. The students in the BSC program are all greatly in need of special help in their reading, but their needs vary. Some of them are essentially non-readers while some of them are deficient only in certain skills. The course of instruction for each child is planned after his deficiencies have been identified with the expectation that he will be able to return to his school's regular reading classes when he has completed the program. The tests embedded in the newly developed BSC course should give the information as to when a student has become a functional reader, when he has, in fact, learned a very basic skill. The teachers at the Centers are well qualified to make judgments concerning reading ability, also. For purposes of objectively reporting the results of the project as a whole, however, we must rely on the standardized tests. Since the same tests have been used for several years, the improvement of the BSC program may be viewed with some confidence in view of the greater gains which were made by the students this year.

Recommendations

The following recommendations are based on the assumption that federal or other funds will again be available to provide the paraprofessionals needed for implementation of this program. The Basic Skill Centers project differs from other Title I reading projects in the Minneapolis schools in that it serves the most severely disabled readers in grades four to nine in Title I schools with an individualized program designed to enable them to return to reading classes in their home schools.

1. Continue the program at the Basic Skill Centers since the year's results showed it to be highly effective in terms of its objectives.

2. Continue the development and implementation of new programs since gains have been greater than in the early years of the project before such materials were added to the program.

3. Continue to provide feedback to and encourage close relationships with the participating schools. This facilitates the use of the follow-up materials for reinforcing the children's newly learned skills.

4. Continue the selection procedures that have been used for the last two years. The double screening gives the participating schools a voice in the process and allows the Centers' teachers to identify those who might most benefit from the program.

5. Try to identify the differential effects of the various components of the program. The comparison of results at the Centers indicated a superiority of the approach used at the North Center which should be further investigated.

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